در بد الله

IN THE CLAIMS:

Claims 1-2 (Canceled)

3. (Previously presented) A Sym-triindole derivative represented by the following general formula (3):

5

10

$$R_6$$
 R_5
 R_5
 R_5
 R_5
 R_5
 R_6
 R_6
 R_6

wherein R_5 is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group, or aryl C1-C6 alkyl group; and R_6 is hydrogen, formyl group, cyano group, C1-C6 alkoxycarbonyl group, dicyanovinyl group, aryl group or substituted aryl group.

4. (Previously presented) A process for producing a Symtriindole derivative represented by the following general

formula (7):

$$R_7$$
 R_5
 R_5
 R_5
 R_7
 R_7
 R_7
 R_7
 R_7
 R_7
 R_7

wherein R₅ is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group; and R₇ is hydrogen, formyl group, cyano group, C1-C6 alkoxycar-bonyl group, aryl group or substituted aryl group, which process comprises reacting an N-substituted-5-halo-oxyindole represented by the following general formula (4):

$$X \longrightarrow O \qquad (4)$$

$$R_5$$

wherein R_5 has the same definition as given above; and X is halogen, with a phosphorus oxyhalide to obtain an N-substituted-5-halo-triindole derivative represented by the

following general formula (5):

$$R_5$$
 R_5
 R_5
 R_5
 R_5
 R_5
 R_5
 R_5
 R_5

wherein R_5 and X have the same definitions as given above, and reacting the derivative of general formula (5) it with a boric acid compound represented by the following general formula (6):

$$R_7$$
 B OR_b OR_b OR_b

wherein R_7 has the same definition as give above; and R_a and R_b are each independently hydrogen atom, C1-C6 alkyl group or optionally substituted phenyl group and may be combined to each other to form a ring.

5. (Previously presented) A process for producing a Sym-

triindole derivative represented by the following general formula (7):

$$R_7$$
 R_5
 R_5
 R_5
 R_5
 R_5
 R_7
 R_7
 R_7
 R_7
 R_7
 R_7
 R_7
 R_7
 R_7
 R_7

wherein R₅ is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group; and R₇ is hydrogen, formyl group, cyano group, C1-C6 alkoxycarbonyl group, aryl group or substituted aryl group, which process comprises reacting an N-substituted-5-halo-triindole derivative represented by the following general formula (5):

10

wherein R_5 has the same definition as given above; and X is halogen, with a boric acid compound represented by the following general formula (6):

$$R_7$$
 OR_a (6)

- wherein R_7 has the same definition as given above; and R_a and R_b are each independently hydrogen atom, C1-C6 alkyl group or optionally substituted phenyl group and may be combined to each other to form a ring.
- 10 6. (Previously presented) A process for producing an N-substituted-5-halo-triindole derivative represented by the following general formula (5):

$$R_5$$
 R_5
 R_5
 R_5
 R_5
 R_5
 R_5
 R_5

wherein R_5 is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group; and X is halogen, which process comprises reacting an N-substituted-5-halo-oxyindole represented by the following general formula (4):

$$X \longrightarrow P_{N} = 0$$
 (4)

5

wherein R_5 and X have the same definitions as given above, with a phosphorus oxyhalide.

7. (Previously presented) A process for producing a Symtriindole derivative represented by the following general formula (10):

$$R_8$$
 R_9
 R_5
 R_5
 R_7
 R_9
 R_9
 R_9
 R_9
 R_9
 R_9
 R_9
 R_9

wherein R_5 is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group; R_8 is hydrogen or cyano group; and R_9 is cyano group, carboxylic acid group, C1-C6 alkoxycarbonyl group, aryloxycarbonyl group, aryl group or substituted aryl group, which process comprises reacting a triindole derivative represented by the following general formula (8):

OHC
$$R_5$$
 N
 R_5
 R_5
 R_5
 R_5
 R_5
 R_6
 R_7
 R_8

wherein R_5 has the same definition as given above, with a methylene compound represented by the general formula (9):

$$R_8 \cap R_9$$
 (9)

wherein R_8 and R_9 have the same definitions as give above.

5

8. (Previously presented) A Sym-triindole vinyl derivative represented by the following general formula (11):

$$R_{10} \xrightarrow{R_{10}} R_{10}$$

wherein R_8 is hydrogen or cyano group; R_9 is cyano group, carboxylic acid group, C1-C6 alkoxycarbonyl group, aryloxy-carbonyl group, aryl group or substituted aryl group; and R_{10} is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group.

9. (Currently amended) A process for producing a Symtriindole derivative represented by the following general formula (11):

10

$$R_{10} \longrightarrow R_{10}$$

$$R_{10} \longrightarrow R$$

wherein R_8 is hydrogen or cyano group; R_9 is cyano group, carboxylic acid group, C1-C6 alkoxycarbonyl group, aryloxycarbonyl group, aryl group or substituted aryl group; and R_{10} is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group, which process comprises reacting an oxyindole compound represented by the following general formula (12):

$$\begin{array}{c}
X \\
N \\
R_{10}
\end{array}$$
(12)

5

wherein R_{10} has the same definition as given above and X is 10 halogen, with a phosphorus oxyhalide to obtain a Sym-halo-triindole derivative represented by the following general formula (13):

$$\begin{array}{c|c}
R_{10} & X \\
X & R_{10}
\end{array}$$

$$\begin{array}{c}
R_{10} & X \\
X & X
\end{array}$$

$$\begin{array}{c}
X & X \\
X & X
\end{array}$$

$$\begin{array}{c}
X & X \\
X & X
\end{array}$$

wherein R_{10} and X have the same definitions as given above, subjecting the derivative of general formula (13) to formylation with a formylating agent in the presence of butyllithium to obtain a Sym-formyltriindole derivative represented by the following general formula (14):

OHC
$$R_{10}$$
 R_{10} R_{10}

wherein R_{10} has the same definition as given above, and reacting the derivative of general formula (14) with a methylene compound represented by the following general formula (9):

$$R_8 \cap R_9$$
 (9)

+wherein R_8 and R_9 have the same definitions as given above+.

10.(Previously presented) A process for producing a Sym5 triindole derivative represented by the following general formula (11):

$$R_{10} \xrightarrow{R_{10}} R_{9}$$

$$R_{10} \xrightarrow{R_{10}} R_{10}$$

$$R_{10} \xrightarrow{R_{10}} R_{10}$$

$$R_{10} \xrightarrow{R_{10}} R_{10}$$

$$R_{10} \xrightarrow{R_{10}} R_{10}$$

wherein R_8 is hydrogen or cyano group; R_9 is cyano group, carboxylic acid group, C1-C6 alkoxycarbonyl group, aryloxy-10 carbonyl group, aryl group or substituted aryl group; and R_{10} is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group, which process comprises reacting a Sym-formyltriindole derivative represented

by the following general formula (14):

OHC
$$R_{10}$$
 R_{10} R_{10}

wherein R_{10} has the same definition as given above, with a methylene compound represented by the following general for- 5 mula (9):

$$R_8 R_9$$
 (9)

wherein R_8 and R_9 have the same definitions as given above.

11. (Previously presented) A process for producing a Sym10 formyltriindole derivative represented by the following general formula (14):

OHC
$$R_{10}$$
 R_{10} R_{10}

wherein R_{10} is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group), which process comprises subjecting a Sym-halo-triindole derivative represented by the following general formula (13):

5

$$X \longrightarrow X$$

$$R_{10} \longrightarrow X$$

$$R_{10} \longrightarrow X$$

$$(13)$$

wherein R_{10} has the same definition as given above and X is halogen, to formylation with a formylating agent in the presence of butyllithium.

10 12. (Previously presented) A Sym-triindole derivative represented by the following

general formula (15):

$$R_{10}$$
 R_{10}
 R_{10}
 R_{10}
 R_{10}
 R_{10}
 R_{11}

wherein R_{10} is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group; and R_{11} is aryl group or substituted aryl group.

13. (Previously presented) A process for producing a Symtriindole derivative represented by the following general formula (15):

10

$$R_{10}$$
 R_{10} R_{10} R_{10} R_{10} R_{11}

wherein R_{10} is C2-C12 alkyl group, substituted C2-C12 alkyl group, C2-C12 haloalkyl group or aryl C1-C6 alkyl group; and R_{11} is aryl group or substituted aryl group, which process comprises reacting a Sym-halo-triindole derivative represented by the following general formula (13):

$$\begin{array}{c|c}
R_{10} & X \\
\hline
N & R_{10}
\end{array}$$

$$\begin{array}{c}
R_{10} & X \\
\hline
N & X
\end{array}$$

$$\begin{array}{c}
R_{10} & X \\
\hline
N & X
\end{array}$$

5

wherein R_{10} has the same definition as given above and X is halogen with an acetylene derivative represented by the following general formula (16):

$$R_{11} - R_{12}$$
 (16)

wherein R_{11} has the same definition as given above and R_{12} is hydrogen or trimethylsilyl group.

14. (Canceled)